

Claims:

1. A method of centralised data position information storage comprising the steps of:

5 arranging a byte stream of data into partitioned logical data;

providing an updateable ²⁰³centralised storage area being operable to store data position information relating to said logical data;

10 utilising said information to locate a target data being part of said logical data; and

storing said data position information in said storage area.

15 2. The method as claimed in claim 1 wherein said step of storing said data position information comprises:

^{when close to key} applying a first store algorithm to said target data to update said storage area with target data position information; and

^{searching} 20 applying a second store algorithm to non-target data to update said storage area with non-target data position information.

25 3. The method as claimed in claim 2 wherein said first and said second algorithms are operable to store said data position information in a data table;

wherein said data table is configurable to store data position information relating to said logical data, said logical data comprising records and filemarks.

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4. The method as claimed in any one of claims 1 or 2 wherein said step of utilising said data position information comprises:

applying a search algorithm to said data position information;

wherein said search algorithm is configured to locate said target data.

5. A method of updating data position information on a tape storage device, said method comprising the steps of:

arranging a byte stream of data into partitioned logical data and recording said data onto a length of tape;

storing data position information relating to said logical data within an updateable centralised storage area;

utilising said information to determine a required transporting of said logical data passed a read head to allow a target data to be read by said read head, said target being part of said logical data; and

updating said storage area with data position information obtained following a transporting of said logical data passed said read head.

6. The method as claimed in claim 5 wherein the step of updating said storage area comprises:

reading said logical data on said tape using said read head; and

writing said data position information to said storage area;

wherein said read head is configurable for said reading of said data when a velocity of transporting said logical data passed said read head is below a pre-determined value.

5 7. The method as claimed in claim 5 wherein the step of updating said storage area comprises:

reading said target data on said tape using said read head; and

10 writing target data position information to said storage area.

8. The method as claimed in claim 5 further comprising the steps of:

transferring said data position information from a reserve storage area to
15 said centralised storage area; and

following said step of updating said centralised storage area, transferring
said data position information from said centralised storage area to said reserve
storage area.

20 9. The method as claimed in claim 8 wherein said updateable centralised storage area contains no data position information prior to a first transporting of said logical data passed said read head; and

25 following said first transporting of logical data, said data position information is stored in said centralised storage area.

10. A data position information storage and utilisation device
comprising:

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partitioned logical data distributed across a length of tape;

an updateable centralised storage area to receive and store data position information relating to said logical data;

5 a search algorithm to locate a target data being part of said logical data; and
a read head to read said data from said tape;

10 wherein said information is stored in said storage area following a transporting of said logical data passed said read head.

11. A device as claimed in claim 10 further comprising:

15 a first store algorithm to control the reading of target data from said tape and the storing of said target data position information in said storage area; and

a second store algorithm to control the reading of non-target data from said tape and the storing of non-target data position information in said storage area.

20 12. A device as claimed in claim 10 wherein said updateable centralised storage area is configurable to store said data position information relating to substantially all of said logical data.

25 13. A device as claimed in claim 10 wherein said updateable centralised storage area is configurable to store said data position information relating to selected data groups, said data groups being distributed across said length of tape.

30 14. A device as claimed in claim 11, said device further comprising:
a tape drive;

wherein said updateable centralised storage area, said read head, said search algorithm and said first and said second store algorithms are located in said tape drive.

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15. A computer program comprising program commands for implementing a method of centralised data position information storage, said method comprising the steps of:

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arranging a byte stream of data into partitioned logical data;

providing an updateable centralised storage area being operable to store data position information relating to said logical data;

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utilising said information to locate a target data being part of said logical data; and

storing said data position information in said storage area.

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16. A computer program comprising program commands for implementing a method of updating data position information on a tape storage device, said method comprising the steps of:

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arranging a byte stream of data into partitioned logical data and recording said logical data onto a length of tape;

storing data position information relating to said logical data within an updateable centralised storage area;

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utilising said information to determine a required transporting of said data passed a read head to allow a target data to be read by said read head, said target data being part of said logical data; and

- 5 updating said storage area with data position information obtained following
a transporting of said logical data passed said read head.

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